



The geophysical data were acquired with a DIGIMET Electromagnetic (EM) system, a Fugro D1344, a Fugro 3000, and a Fugro 3000-2000, and a Gamma-Ray and Radiation Solutions RS-500 gamma-ray spectrometer. The EM system was used to acquire the EM data with an Explanium GR-820 spectrometer, to a height of 100 feet. The gamma-ray spectrometers were used to acquire the gamma-ray data. The survey recorded data from radar and laser altimeters, magnetic field, and gamma-ray spectrometers and video camera. Flights were conducted at a mean terrain clearance of 200 m, with a maximum clearance of 300 m, and a spacing of a quarter of a mile. The flight lines were spaced at intervals of approximately 3 miles.

A Novatel OEM5-G2L Global Positioning System (GPS) was used to acquire the GPS data. The GPS was serviced every 5 seconds using post-flight processing. The GPS data were processed to a better than 5 m. Flight path positions were projected onto the Clarke 1866 (UT zone 5). The GPS data were processed to a better than 5 m. The central meridian (CM) of 55° is a north constant. The GPS data were processed to a better than 5 m. The accuracy of the presented data is better than 5 m.

		<p><b>Anomaly</b></p> <p><b>Conductance</b></p>
<p>Arcs indicate the conductor has a thickness &gt;10 mm</p>	<p>○ 100 Siemens</p> <p>● 50-100 Siemens</p> <p>◐ 20-50 Siemens</p> <p>◑ 10-20 Siemens</p> <p>◒ 5-10 Siemens</p> <p>◓ 1-5 Siemens</p> <p>◔ &lt; 1 Siemens</p>	<p>□ Questionable anomaly</p> <p>△ EM magnetic response</p>
<p><b>Interpretive symbol</b></p> <p>B Conductive core</p> <p>A Nonferrous conductor</p> <p>S Conductor cover</p> <p>H "Horizontal thin sheet"</p> <p>S Broad conductive root wall, or conductive weathering, thin conductive "plate" space</p> <p>E Edge of broad conductor (wide of half space)</p> <p>L Culture, air power line, metal building or fence</p> <p>M Magnetic</p> <p>?? Indicates some uncertainty as to the validity of the EM response, but does not question the validity of the EM data</p>	<p><b>Conductor model</b></p> <p>B Conductive core</p> <p>A Narrow conductive conductor ("thin plate")</p> <p>S Conductive cover</p> <p>H "Horizontal thin sheet"</p> <p>S Broad conductive root wall, or conductive weathering, thin conductive "plate" space</p> <p>E Edge of broad conductor (wide of half space)</p> <p>L Culture, air power line, metal building or fence</p> <p>M Magnetic</p> <p>?? Indicates some uncertainty as to the validity of the EM response, but does not question the validity of the EM data</p>	<p>○ Culture</p> <p>△ Response</p>

### PARTS of McGRATH B-1, B-2, C-1 and C-2 QUADRANGLES

EM systems  
at five  
rotated at 1

The magnetic total field data were processed using a digitally recorded data system at a Fugro D1344 magnetometer with a Scintrex 033 cesium seed. Data were collected at a sampling interval of 0.1 seconds. The magnetic data were (1) corrected for diurnal variations by subtraction of the digitally recorded base magnetic data, (2) geographically corrected to the 2010, updated for date of flight and altimeter variations), (3) leveled to the tie line data, and (4) interpolated onto a regular 80 m grid using a modified Akima (1970) technique. All grids were then resampled to a 10 m grid size and corrected for drift to produce the maps and final grids contained in this publication.

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This map has been compiled and drawn under contract between the State of Alaska, Department of Natural Resources, Division of Geological & Geophysical Surveys (DGGGS), and the Geological Survey of Canada (GSC). The geographical data for the area were acquired and processed by GCG in 2012, 2013, and 2014. The current survey are shown in the location map by dashed lines, survey name, and date of publication. The project was funded by the Alaska Legislature as part of the Alaska Strategic and Critical Minerals Assessment project, which is part of the Alaska Strategic and Critical Minerals Assessment Inventory Program. Cook Inlet Region, Inc. (CIRI) contributed funding for a portion of the area.

All data and maps are available in digital format on DVD for the nominal fee through DGGGS, 3354 College Road, Fairbanks, Alaska, 99709-3999. The maps are also available on the DGGGS website ([www.dggs.alaska.gov/pubs](http://www.dggs.alaska.gov/pubs)). Maps are also available on paper through the DGGGS office, and can be downloaded online at the website in Adobe Acrobat (.PDF) file format.